

Abstract

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The present invention relates to a method for operating a fuel metering system (11) of a direct-injection internal combustion engine (1), having a fuel supply container (12), at least one prefeed pump (13), a high-pressure pump assembly having at least two high-pressure pumps (14, 15) for pumping fuel out of the low-pressure region (ND) into at least one high-pressure reservoir (16; 16', 16''), a control unit (22) for regulating an injection pressure (p_r) prevailing in the high-pressure reservoir (16; 16', 16''), and having fuel injection valves (9) for injecting fuel out of the high-pressure reservoir (16; 16', 16'') into combustion chambers (4) of the engine (1). In order especially in engines (1) with large displacement and in engines with more than four cylinders to assure reliable supply of fuel to the combustion chambers (4), it is proposed that the fuel metering system (11) has one fuel circuit for metering fuel into all the combustion chambers (4) of the engine (1), and all the high-pressure pumps (14, 15) are disposed in the fuel circuit, and that all the high-pressure pumps (14, 15) are triggered independently of one another via a common pressure regulating circuit. (Fig. 1)